REMARKS

Claims 18-34 are pending in the subject application: claims 1-17 stand rejected. By the above amendments, claims 1-17 have been canceled, and new claims 18-34 have been added. Applicants submit that no new matter has been added, and notice to that effect is solicited. Applicants further submit that the claims, as now presented, more clearly claim the subject matter of the subject application. Currently upon entry of this amendment, claims 18-34 are pending of which claims 18 and 31 are independent. New claims 18-20 correspond to the subject matter of canceled claims 1-3, the subject matter of claim 4 has been canceled, and new claims 21-33 correspond to the subject matter of canceled claims 5-17.

The Examiner objects to the disclosure due to informalities. Applicants have carefully reviewed the specification, and it is believed that the issues raised by the Examiner have been addressed by the above amendment to the specification. Specifically, the abstract is now within the 150 word length.

As claims 1-17 have been canceled, Applicants respectfully submit that the outstanding rejection directed to claims 1-17 are moot.

New independent claim 18 recites, *inter alia*, A method for making a holey fiber, said method comprising:

> stacking a plurality of structures comprising a first structure of a first material having a first softening point and a second structure of a second material having a hollow central portion and a second softening point that is higher than the first softening point, said stacking comprises arranging the plurality of structures to form a bundle containing interstices between the structures;
>
> creating a fused element by heating the bundle to a fusion temperature to soften the first structure such that the first structure flows around a portion of the second structure and closes a portion of the interstices, and such that the second structure retains shape;

creating a perform having channels therein, by removing the second structure from the fused element;

drawing the preform at a draw temperature which is below the softening point of the first structure.

United States Patent Application No. 2004/0050110 to Berkey et al. fails to disclose that which is recited in independent claim 18. Specifically, Berkey et al. recites the use of at least one sacrificial *rod* having an outside surface, forming a material on the outside surface of each sacrificial *rod* to yield a structured body. (paragraph 0030) Berkey et al. further discloses the sacrificial *rod* as a material that can be removed from the structured body either chemically or physically. This is in contrast to independent claim 18 which recites the second material having a *hollow central portion*.. As is understood by those skilled in the art, a rod has a solid core and not a hollow central portion.

Moreover, it would not be obvious to substitute a second material having a hollow central portion for the rod of Berkey et al. The second material having a hollow central portion allows for more efficient chemical removal of the second material since a hollow central portion provides a larger surface area for chemical interaction than a rod. The only surface area available for chemical interaction on the rod of Berkey et al. are the ends. Accordingly, Berkey et al. fails to teach or suggest a second material having a hollow central portion as recited in new independent claim 18, as well as independent claim 33.

The United States Patent No. 6,917,741 to Fekety et al. essentially teaches stacking glass tubes to form a bundle with an arbitrary core size and shape. On page 5 of the Office action, under item 14, the Examiner states Fekety et al discloses removing the structures of the higher softening point material. Applicants respectfully disagree. Fekety et al. fails to teach or suggest the concept of *creating* a perform having channels therein, by *removing* the second structure from the fused element. This is in contrast to Fekety et al. which teaches constructing performs with cores that are of arbitrary size and shape. Moreover, Fekety fails to remove any structures from the preforms. Accordingly, Fekety et al. fails to teach or suggest creating a perform having channels therein by *removing* the second structure. as recited in independent claims 18.

In addition, Fekety et al. fails to teach or suggest creating a preform by *removing* the non-glass tubes from the fused element thus forming channels in the fused element, as recited in new independent claim 34. However, the Examiner asserts the United States Patent Application No. 2005/0147366 to Large et al. teaches fusing of the structures at a particular temperature. Applicants disagree. Large et al. fails to teach fusing glass tubes, as asserted by the Examiner. Rather, Large teaches producing polymer holey optical fiber using novel capillary and cane designs that allow construction of complex holey structures. In paragraph 0045. Large et al. specifically states that "the fusing method only affects the capillaries and canes...without affecting the internal structure". This is in contrast to the invention as claimed in independent claim 18 which creates a fused element by heating the bundle to a fusion temperature to soften the first structure such that the first structure flows around a portion of the second structure and closes a portion of the interstices. The first structure would not be able to flow around the second if the fusion as described in Large et al was applied. Accordingly, Large et al. in combination with Fekety et al. fails to teach or suggest the invention as claimed in independent claims 18 and 33.

The United States Patent No. 5,792,233 to Chesnoy et al. teaches manufacturing a multi-core optical fiber by fusing a plurality of single-core fibers so as to form a multi-core preform and drawing the preform to obtain the fiber. Applicants respectfully assert the fusing step of single core fibers is not the heating [of] the bundle to a fusion temperature *to soften the first structure such that the first structure flows around a portion of the second structure and closes a portion of the interstices*, as recited in independent claim 18. Accordingly, Chesnoy et al. fails to teach or suggest the claimed invention, either alone or in combination with Fekety et al.

Thus, because neither Berkey et al., Fekety et al., Large et al. nor Chesnoy et al, either alone or in combination, discloses that which is recited in each of the independent claims 18 and 34, it is submitted that each of the dependent claims are novel as well. In addition, because of the differences between that which is recited in the claims and that which is disclosed in the above-mentioned prior art, it would not have been obvious to modify either Berkey et al. or Fekety et al.

In light of the above discussion, all the pending claims are in condition for allowance, an indication of which is respectfully solicited.

If there are any outstanding issues that can be resolved by telephone interview, the Examiner is asked to call the Applicant's attorney, Aisha Ahmad, at (202) 404-1557.

Kindly charge any additional fees due or credit overpayment of fees to Deposit Account No. 50-0281.

Dated:

Respectfully submitted,

By _____

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